

### 3.3 OIL-WATER SEPARATORS

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#### Process Description

An oil-water separator is defined in [Regulation 8-8](#) as any device used to separate liquid organic compounds from oil-water streams (excluding wastewater separator forebays, air floatation units, sludge-dewater units, oil-water separator and/or AF Unit slop oil vessels, and junction boxes). Regulation 8-8 also contains the definitions of these excluded components.

Any wastewater (oil-water) separator as defined in [Regulation 8-8](#), which processes less than 200 gallons per day of wastewater containing organic liquids is exempt from permitting requirements per [Regulation 2-1-128.14](#).

#### Completeness Determination

The following District forms should be completed and fees provided for the oil-water separators. Use the [Completeness Determination Checklist](#) to verify completeness. Use the [Data Form Guidance](#) to ensure that the forms are completed correctly. Use the [Fee Calculation Guidance](#) to ensure that the fees are calculated accurately.

1. [Form 101-B](#) (one for facility).
2. [Form G](#) (one per oil-water separator)
3. If oil-water separator is abated, then [Form A](#) (one per device).
4. If Health Risk Screening is triggered, [Form HRSA](#) (one per source).
5. Fees, calculated per [Regulation 3](#) (Schedule F).

#### Emission Calculations

The primary pollutants from oil-water separators is organic compounds (POC). [AP-42, Table 5.1-2](#) (Fugitive Emission Factors for Petroleum Refineries) includes an emission factor for oil-water separators:

Oil-Water Separator	Uncontrolled (lb/1000 gal)	Controlled (lb/1000 gal)
POC	5	0.2

Using the AP-42 factor (see table) with the maximum, annual projected throughput (gallons/year) of wastewater will estimate the annual estimated emissions of POCs from the proposed oil-water separator:

$$\text{POC} = \text{Maximum Projected Throughput (gal/yr)}(\text{Emission Factor lb/1000 gal})$$

#### Applicable Requirements

##### District Rules and Regulations

Oil-water separators are subject to the standards of [Regulation 8-8](#). The permit engineer should review Regulation 8-8 and determine whether the proposed oil-water separator is indeed subject to its standards, because there are several rule exemptions that may exempt non-petroleum refinery-rated oil-water separators from the standards of the rule. If Regulation 8-8 is applicable, the permit engineer should determine whether the proposed oil-water separator will comply.

##### Best Available Control Technology (BACT)

The following are applicable BACT requirements for:

- Water Treating - Oil/Water Separator
- [< 250 Gallons/min](#)
- [≥ 250 Gallons/min](#)
- [Water Treating - Sour Water Stripping](#)

Inform the [BACT Coordinator](#) of updates to the BACT/TBACT Workbook.

### NSPS

The oil-water separators at a petroleum refinery may be subject to the [NSPS, Subpart QQQ: Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems](#). The permit engineer should review the proposed application to ensure that any proposed [oil-water separator](#) is either exempt from the NSPS or complies with the NSPS.

### NESHAPS

If the facility is a major source of HAPs, the oil-water separators may be subject to [NESHAPS 40 CFR 63 Subpart VV: National Emission Standards for Hazardous Air Pollutants for Oil-Water Separators and Organic-Water Separators](#). The permit engineer should review the proposed application to ensure that any proposed dehydrator and/or storage vessels are either exempt from the NESHAPS or complies with the NESHAPS, if the facility is a major source of HAPs.

### California Environmental Quality Act (CEQA)

Permit applications which are reviewed following the specific procedures, fixed standards and objective measurements set forth in this chapter (3.3) are classified as ministerial and will accordingly be exempt from CEQA review per [Regulation 2-1-311](#).

In addition to the above-mentioned source-specific applicable requirements, other requirements may also be applicable depending on the facility, its application emissions, and its source location:

- |  |  |
|--|--|
| <input type="checkbox"/> Offsets                                 | <input type="checkbox"/> School Notification     |
| <input type="checkbox"/> Prevention of Significant Deterioration | <input type="checkbox"/> Risk Screening Analysis |

### **Permit Conditions**

Standardized conditions for oil-water separators are available from the [Permit Condition Guidance](#). Refer to the [Evaluation Report Template Guidance](#) to obtain the Microsoft Word formatted permit conditions for this source category.